

SHTELIK, V. G.: Master Phys-Math Sci (diss) -- "On solutions of systems of differential equations with almost periodic and 'close to periodic' coefficients". Kiev, 1958. 5 pp (Acad Sci Ukr SSR, Inst of the Physics of Metal), 150 copies (KL, No 3, 1959, 108)

SHTELIK, V.G. [Shtelik, V.H.]

Stability of solutions of systems close to the periodic. Dop. AN URSSR
no.6:598-600 '58. (MIRA 11:9)

1. Institut matematiki AN USSR. Predstavil akademik AN USSR
I.Z. Shtokalo. (Functions, Periodic)

41-1-11/15

AUTHOR: SHTELIK, V.G. (Kiyev)

TITLE: On the Determination of a Finite Time Interval of the Stability of Solutions of a System of Differential Equations (K voprosu ob opredelenii konechnogo intervala vremeni ustoychivosti resheniy sistemy differentsial'nykh uravneniy)

PERIODICAL: Ukrainskiy Matematicheskiy Zhurnal, 1958, Vol. 10, Nr 1, pp. 37-58 (USSR)

ABSTRACT: The system

$$(1) \quad \frac{dx_j}{dt} = \sum_{i=1}^N p_{ji}(t)x_i + X_j(t, x_1, \dots, x_N), \quad j=1, \dots, N,$$

with complex-valued $p_{ji}(t)$ which satisfy the Lipschitz condition with the constant α for $t_0 \leq t \leq T$, and with X_j the power series expansion of which for $|x_j| \leq h$, $t_0 \leq t \leq T$ begins with terms of at least second order, is assumed to possess a unique solution.

Definition: Let $x_i(t)$ be a solution and $x_{i0} = x_i(t_0)$, let a_{ik} be arbitrary constants with $\det \|a_{ik}\| \neq 0$. The solution is called stable on the finite interval $[t_0, t_0 + \tau]$, if for a

Card 1/3

On the Determination of a Finite Time Interval of the Stability of Solutions of a System of Differential Equations 41-1-11/15

sufficiently small A on $[t_0, t_0 + \tau]$ it follows from

$$\sum_{s=1}^N |a_{s1}x_{10} + \dots + a_{sN}x_{N0}|^2 \leq A$$

that there it is also

$$\sum_{s=1}^N |a_{s1}x_1 + \dots + a_{sN}x_N|^2 \leq A$$

Theorem: Let (1) satisfy the conditions: 1. $|x_j| \leq \chi \left(\sum_{j=1}^N |x_j|^2 \right)^{\frac{1}{2}}$,

χ is a small constant independent of t . 2. All the roots of the equation $\det \|p_{ij}(t_0) - \lambda \delta_{ij}\| = 0$ have negative real parts.

Then the solution is stable on the finite interval $[t_0, t_0 + \tau]$, whereby it is

$$\tau = \frac{2}{\alpha N^3(N-1)^{\frac{N-1}{2}}} \left[(N-1)!(2N-1)2^N p^0 \right]^{-\frac{N(N-1)}{2}} \left[\frac{2pN(N-1)}{2+N(N-1)} \right]^{\frac{N(N-1)}{2} + 1} - \frac{\chi}{\omega}$$

Card 2/3

On the Determination of a Finite Time Interval of the Stability of Solutions of a System of Differential Equations 41-1-11/15

Here it denotes $p^0 = \sup p_{ij}(t_0)$ and $-p$ the upper bound of the real parts of the roots. 3 Soviet references are quoted.

SUBMITTED: 4 November 1957

AVAILABLE: Library of Congress

1. Differential equations-Solution-Stability

Card 3/3

SHTELIK, V.G. (Kiyev)

Determining the finite time interval of solution stability of
simultaneous differential equations. Ukr.mat.zhur. 10 no.1:100-102
'58. (MIRA 11:4)

(Differential equations)

AUTHOR: Sntelik, V.G.

SOV/41-10-3-7/14

TITLE: On the Question Concerning the Solutions of a Linear System of Differential Equations With Almost Periodic Coefficients
(K voprosu o resheniyakh lineynoy sistemy differentsial'nykh uravneniy s pochtii periodicheskimi koeffitsiyentami)

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, 1958, Vol 10, Nr 3,
pp 318 - 327 (USSR)

ABSTRACT: The author considers the system

$$(1) \quad x' = (Q_0 + Q(t))x,$$

where Q_0 is a constant matrix and $Q(t) = \sum_{k \neq 0} Q_k e^{i \gamma_k t}$, where

$$\sum_{k \neq 0} q_{\alpha\beta}^k = q_{\alpha\beta} < \infty, \quad Q_k = (q_{\alpha\beta}^k)_{\alpha, \beta=1}^m \quad \text{holds. Necessary and}$$

sufficient conditions are given that the fundamental matrix of the solutions of (1) has the form $\exp \{Q_0(t-t_0)\} G(t, t_0)$,

where G is an almost periodic matrix. Furthermore there are given sufficient conditions for the stability and instability

Card 1/2

On the Question Concerning the Solutions of a Linear System of Differential Equations With Almost Periodic Coefficients SOV/41-10-3-7/14

of the solutions of (1) and of $x' = (Q_0 + \varepsilon Q(t))x$ in the critical case. Here the author uses the transformation of Krylov and Bogolyubov [Ref 13]. He thanks Professor Yu.A. Mitropol'skiy for valuable references. There are 16 references, 14 of which are Soviet, 1 is French, and 1 Roumanian.

SUBMITTED: April 28, 1958 (Kiyev)

Card 2/2

SHTELIK, V.G.

28681

S/021/60/000/007/004/009
D211D305

13.2540

AUTHORS: Shevelo, V.M., and Shtelik, V.H.

TITLE: On the motion of a pendulum of variable length and mass

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 7, 1960, 884 - 887

TEXT: The aim of the paper is to consider the motion of a pendulum with variable mass and length and to determine the initial values, for which the motion is an oscillation or a rotation. The equation of motion of such a pendulum - using the law of conservation of momentum - could be described by the following equation

$$\ddot{\theta} + \left(\frac{\dot{m}}{m} + \frac{\dot{l}}{l} + \frac{g}{l} \right) \dot{\theta} + \frac{g}{l} (\sin \theta - \sin \theta_p) = \frac{\dot{m}}{ml} u \quad (1)$$

where $m(t)$ is a mass, $l(t)$ is a length, $\theta_p(t)$ - angle of deflection from the positions of stable equilibrium, $u(t)$ - projection

Card 1/2

28681

S/021/60/000/007/004/009
D211/305

On the motion of a pendulum ...

of velocity on the tangent to the trajectory of the pendulum. By the oscillatory motion of a pendulum described by Eq. (1) in the interval of time $t_0 \leq t \leq t_0 + T$. It is understood such motion that $\theta(t)$ has not less than one turning point, i.e. $\dot{\theta}(t_j) = 0$, $t_j \in [t_0, t_0 + T]$, $(j = 1, \dots, s)$, $s \geq 1$; $|\theta_0, \theta_p(t_0)| \leq \pi$; $-\pi < \theta(t_j) - \theta_p(t_j) < \pi$. $-\pi < \theta(t_0 + T) - \theta_p(t_0 + T) < \pi$. The motion of pendulum when $\dot{\theta}(t)$ is different from 0 in the time interval $t_0 \leq t \leq t_0 + T$ and $\theta(t_0 + T) > \pi - \theta_p(t_0 + T)$ or $\theta(t_0 + T) \leq -\pi + \theta_p(t_0 + T)$ is called the rotational motion. The set of conditions for $\theta_0, \dot{\theta}_0$ which guarantee the oscillating motion are then called the region of oscillation. The region of rotation could be defined in the same way. The author then considers the case $\theta_p = 0$, $u = 0$.
ASSOCIATION: Instytut matematyki AN USSR (Institute of Mathematics AS UkrSSR)
PRESENTED: by Y.Z. Shtokalo, Academician AS UkrSSR
SUBMITTED: July 17, 1959
CARD 2

S/021/60/000/008/001/011
D210/D305

V.G.

AUTHORS: Shevelo, V.M., and Shtelik, ~~V.H.~~

TITLE: On the condition of oscillation (non-oscillation) of solutions of non-linear equations of the second order with variable coefficients

PERIODICAL: Akademiya nauk Ukrayins'koyi ESR. Dopovidi, no. 8, 1960, 1007 - 1010

TEXT: The aim of the paper is to find the regions of oscillation and non-oscillations for solving the second order differential equation

$$\ddot{y} + s(t) \dot{y} + r(t) f(y) = 0, \quad (1)$$

where $s(t), r(t) > 0$ are continuous functions in the interval $t_0 \leq t \leq t_0 + T$; $f(0) = 0$ and $f(y)$ satisfies the Lipshits conditions and is such that $\int f(y) dy = F(y) \leq \bar{F}$, $\bar{F} > 0$ for all y . The oscillating solution of Eq. (1) in the interval $t_0 \leq t \leq t_0 + T$ is

Card 1/5

On the condition of oscillation ...

S/021/60/000/008/001/011
D210/D305

such a solution $y(t)$ for which $\dot{y}(t)$ for $t \in [t_0, t_0 + T]$ has not less than one zero, i.e. where b is a constant $[\dot{y}(t_j) = 0, j = 1, \dots, s, s > 1]$ and $|y(t_j)| < b, |y_0| < b$. The solution of (1) is a non-oscillating solution in the interval $t_0 \leq t \leq t_0 + T$, if $\dot{y}(t)$ has no zeros and $|y(t_0 + T)| > b$. The region of oscillation of the solutions of the equation is the set of initial conditions y_0, \dot{y}_0 which in the given interval $(t_0, t_0 + T)$ secure the existence of oscillating solutions. The author shows next how to change Eq. (1) into a new form

$$y^2 = Q(t) [1 - k^2(t) G(t)] \quad (4)$$

where

$$Q(t) = \exp \left(-2 \int_{t_0}^t s dt \right) [\dot{y}_0^2 + 2(R_0 F_0 + \alpha + \beta)],$$

$$k^2(t) = \frac{4(\alpha + \beta)}{\dot{y}_0^2 + 2(R_0 F_0 + \alpha + \beta)} \quad (5)$$

Card 2/5

On the condition of oscillation ...

S/021/60/000/008/001/011
D210/D305

$$0 \leq G(t) = \frac{(RF + u) + (\beta - \int_{t_0}^t R' F dt)}{2(\alpha + \beta)} \leq 1, \quad (5)$$

$R_0 = R(t_0), F_0 = F(y_0).$

$R_0 = R(t_0), F_0 = F(y_0) R(t) = r(t) \exp(2 \int_{t_1}^{t_2} s dt) > 0$ and $\alpha(t), \beta(t)$
functions for which

$$R(t) F(y) \leq \alpha(t), \int_{t_0}^t R'(t) F(y) dt \leq \beta(t), \alpha(t) + \beta(t) > 0. \quad (3)$$

The function $\alpha(t), \beta(t)$ would be found as follows: a) If $R' \geq 0$

Card 3/5

On the condition of oscillation ...

S/021/60/000/008/001/011
D210/D305

then $\alpha = R\bar{F}$, $\beta = \int_{t_0}^t R'\bar{F}dt$; b) If $R' \leq 0$ then $\alpha = R\bar{F}$, $\beta = - \int_{t_0}^t R'\bar{F}dt$;
c) If R' changes the sign then $\alpha = R\bar{F}$, $\beta = (t - t_0)R'\bar{F}$. Theorem:

If $k^2 < 1$ for $t_0 \leq t \leq t_1$ and if $\int_{t_0}^{t_1} \sqrt{Q(1 - k^2)}dt > b + /y_0/$ then

the solutions for initial conditions, for which $k^2 < 1$ will be non-oscillating during $t_0 \leq t \leq t_1$. If $k^2 > 1$ for $t_0 \leq t \leq t_2$ and

$\int_{t_0}^{t_2} \sqrt{Q} dt < b - /y_0/$ then the solutions for the initial conditions for which $k^2 > 1$ could be oscillating. This could be provided directly using Eqs. (4) and (5). There is 1 Soviet-bloc reference.

Card 4/5

On the condition of oscillation ...

S/021/60/000/008/001/011
D210/D305

ASSOCIATION: Instytut matematyki AN URSR (Institute of Mathematics AS UkrSSR)

PRESENTED: by Y.Z. Shtokalo, Academician AS UkrSSR

SUBMITTED: July 17, 1959

Card 5/5

SHELIK, V. G. and SHEVELO, V. N.

"Some problems of the theory of nonlinear vibration on non-autonomous one-dimensional systems."

Paper presented at the Intl. Symposium on Nonlinear Vibrations, Kiev, USSR, 9-19 Sep 61

Institute of Mathematics of Sciences of the Ukrainian SSR

33866S/O41/62/014/001/007/007
B112/B104

16.3400

AUTHORS: Shevelo, V. N., Shtelik, V. G. (Kiyev)

TITLE: Sufficient conditions for the stability of solutions of some nonlinear second-order equations

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, v. 14, no. 1, 1962, 109 - 112

TEXT: The authors investigate the stability of the trivial solution $z = 0$ of the system $z'' + \alpha(t)z' + \delta(t)z + g(z, t) = 0$. It is demonstrated that the solution $z = 0$ is asymptotically stable if the conditions $0 < \alpha_1 \leq |\alpha(t)| \leq \alpha_2 < \infty$, $0 < \delta_1 \leq |\delta(t)| \leq \delta_2 < \infty$, $4\alpha_1\delta_1(\alpha_1 + \alpha_2) > (\delta_2 - \delta_1)(\alpha_2^2 + 4\delta_1 \text{sign} \delta(t))$, $\text{sign} \delta(t) = \text{sign} \alpha(t) = 1$ are fulfilled. If the relation $\text{sign} \delta'(t) = \text{sign} \alpha(t) = 1$ is not valid, the solution $z = 0$ will be unstable. It will also be unstable if the conditions $|\alpha(t)| \leq \alpha_2 < \infty$, $\text{sign} \delta(t) = -1$, $|\delta(t)| \geq \delta_1 > 0$, $\alpha_2^2 < 4\delta_1$ are fulfilled. A. M. Lyapunov (Sobr. soch., t. 2, Card 1/2

33866

Sufficient conditions for the ...

S/041/62/014/001/007/007
B112/B104

Izd. vo AN SSSR, M.-L., 1956) is referred to. There is 1 Soviet refer-
ence.

SUBMITTED: March 15, 1961

Card 2/2

43390

S/O41/62/014/004/002/007
B172/B112

21.4/100

AUTHORS: Shevelo, V. N., Shtelik, V. G. (Kiyev)

TITLE: Theory of the non-autonomous mathematical pendulum

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, v. 14, no. 4, 1962,
372 - 382

TEXT: The equation of the non-autonomous mathematical pendulum $(ml^2 \ddot{x})' + mglf(x) = 0$ is studied for the approximations a) $f(x) \sim x$, b) $f(x) = x - \frac{x^3}{3!}$, c) $f(x) = x - \frac{x^3}{3!} + \frac{x^5}{5!}$ and for d) $f(x) = \sin x$ on the following assumptions: (1) $m(t)$ and $l(t)$ are continuously differentiable for all $t \geq t_0 \geq 0$; (2) $m(t)$ and $l(t)$ are either limited and positive or $0 < l_1 \leq l(t) \leq l_2 < \infty$, $m(t)l^2(t) = \exp(\int \alpha(t)dt)$, $|\alpha| \leq \alpha_2 < \infty$. A number of theorems supply conditions under which the pendulum describes a rotary, oscillatory or damped motion. The following main results are obtained: if $s(t) = m^2/l^3$ is monotonic then $x = 0$ is a stable equilibrium position
Card 1/2

SHEVELO, V.N. (Kiyev); SHTELIK, V.G. (Kiyev)

On the theory of a nonself-regulating mathematical pendulum.

Ukr. mat. zhur. 14 no.4:372-382 '62.

(MIRA 15:12)

(Pendulum)

S/020/63/149/002/006/028
B112/B180

AUTHORS: Shevelo, V. N., Shtelik, V. G.

TITLE: Certain problems concerning the oscillation of solutions
to non-linear non-autonomous second-order equations

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 149, no. 2, 1963, 276-279

TEXT: For the equation

$$(k(t)x')' + f(x, x', t) = 0 \quad (1)$$

the following fundamental problems are investigated: (1) To find out conditions for $k(t)$ and $f(x, x', t)$ under which all solutions of Eq. (1) are non-oscillatory, rotational, or oscillatory, respectively. (2) To determine the regions of non-oscillatory, rotational, and oscillatory solutions to Eq. (1) for fixed $k(t)$ and $f(x, x', t)$. (3) To derive a law of variation of the coefficients of Eq-(1) under a given set of initial conditions, such as would guarantee a given character of oscillation for the solutions.

Card 1/2

Certain problems concerning the ...

S/020/63/149/002/006/028
B112/B180

ASSOCIATION: Institut matematiki Akademii nauk USSR
(Institute of Mathematics of the Academy of Sciences UkrSSR);
Vychistel'nykh tsentr Akademii nauk USSR
(Computer Center of the Academy of Sciences UkrSSR)

PRESENTED: September 29, 1962, by N. N. Bogolyubov, Academician

SUBMITTED: March 15, 1962

Card 2/2

4164

S/021/62/000/010/006/008 ..
D251/D308

24,400

AUTHORS: Shevelo, V.M., and Shtelik, V.H.

TITLE: On the relativistic mechanism of a material point of variable mass

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 10, 1962, 1313 - 1316

TEXT: The author considers two partial cases of the equation derived by N.S. Kalitsin (ZhETF, v. 28, 631, 1955) which is a relativistic generalization of I.V. Meshchers'kyy's basic equation for a material point of variable mass. The equations considered are

$$\frac{d}{dt} \frac{m(t) \dot{x}}{(1 - \dot{x}^2/c^2)^{1/2}} + F = 0 \quad (1')$$

$$m(t) \frac{d}{dt} \frac{\dot{x}}{(1 - \dot{x}^2/c^2)^{1/2}} + F = 0 \quad (1'')$$

where $m(t)$ is the rest mass, c is the velocity of light in vacuo, Card 1/2

On the relativistic mechanism of ...

S/021/62/000/010/006/008
D251/D308

and the external force F is assumed of the form $F = r(t)f(x)$. Theorems are proved defining the conditions for uniform oscillation, stability in Lyapunov's sense and the behavior of the amplitude. The stability of the equilibrium position in the case when $m(t)$ is a monotonic function is considered, and the problem of a relativistic pendulum is discussed as an example.

ASSOCIATIONS: Instytut matematyky AN URSSR (Institute of Mathematics of the AS UkrSSR) (V.M. Shevelo); Instytut kibernetiky AN URSSR (Institute of Cybernetics of the AS UkrSSR) (V.M. Shtelik)

PRESENTED: by Yu.O. Mytropol's'kyy, Academician

SUBMITTED: January 2, 1962

Card 2/2

SHEVELO, V.N. [Shevelo, V.M.]; SHTELIK, V.G. [Shtelik, V.H.]

Relativistic mechanics of a material point of variable mass.
Dop. AN URSR no.10:1313-1316 '62. (MIPA 18:4)

1. Institut matematiki AN UkrSSR i Institut kibernetiki AN
UkrSSR.

SHTELING, G., inzh.

Graders and their use in the construction and repair of roads.
Tekh.v sel'khoz. 19 no.5:26-30 My '59. (MIRA 12:7)
(Graders(Earthmoving machinery))

SHTELING, L.Z., inzhener (Moskva)

The MK-1 full revolving diesel-electric crane. Stroi.pred. neft.
prom.2 no.1:24-26 Ja '57. (MLRA 10:3)
(Cranes, derricks, etc.)

ACC NR. AT0007016 (A, v) SOURCE CODE: UR/0413/66/000/023/0130/0130

INVENTOR: Ivanov, V. V.; Shcheglov, G. M.; Spasskiy, K. N.; Karakhan'yan, V. K.; Prudovskiy, B. M.; Semenov, M. I.; Sergeyev, V. A.; Smirnov, I. N.; Britvin, L. N.; Shtel'makh, A. A.

ORG: None

TITLE: An impeller. Class 59, No. 189315 [announced by the All-Union Scientific Research Institute of Hydraulic Machine Building (Vsesoyuznyy nauchno-issledovatel'skiy institut gidromashinostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 130

TOPIC TAGS: centrifugal pump, blade profile, *metal blade, pump component*

ABSTRACT: This Author's Certificate introduces: 1. An impeller for an open centrifugal pump. Pump efficiency is improved and the rigidity of the impeller blades is increased by making the blades in the cylindrical section with a channel shape. The walls of the blade channel are recurved toward the front at a sharp angle to the walls of the pump housing. 2. A modification of this impeller in which the blade channel formed in the cylindrical section has a flat bottom. 3. A modification of this impeller with U-shaped grooves in the flat bottom of the channel on the working side of the blade. These grooves are adjacent to the end surfaces of the blades.

Card 1/2

UDC: 621.671.1-253.5

ACC NR: AP7002616

4. A modification of this impeller equipped with a flat annular rim connected to each blade at the middle of its end sections. 5. A modification of this impeller equipped with flat ribs which connect the middle of the end section on the back side of each blade to the central section of the working side of the following blade.

SUB CODE: 13/ SUBM DATE: 13Jul65

Card 2/2

SHTEL'MAKH, A. D.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Soils and Fertilizers

Effect of perennial grasses on the improvement of physico-chemical qualities of the poor, humus-sulfate (Gazhevaya pochva) soils in Samogori. A. D. Shtel'makh and G. K. Akhvelidze (Inst. Soils, Agrochem., Melioration, Acad. Sci. Georgian S.S.R., Tbilisi). *Sobremennaya Akad. Nauk Gruzii. S.S.R.* 13, No. 4, 231-8 (1952).—In an attempt to improve phys. properties by accumulation of org. material and creation of structure, 4 grass mixts. were tested against control soil with and without fertilizer: (1) alfalfa + esparto; (2) alfalfa + quack grass; (3) esparto + rye grass; (4) esparto + quack grass. Esparto gave higher yields than alfalfa and left more living and root residues in the upper 20-cm. layer, owing to a better-developed filamentous root system. Mixt. (1) slightly increased porosity in the 15 cm. and 30 cm. depths. No change in soil properties were noted below 30 cm. with any of the mixts. In general these soils were strongly effervescent and contained large amts. of $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ (below 30 cm.). Tables are given showing morphological features, moisture capacity, porosity, and also, by 10 cm. layers, particle size, humus and N content, and bicarbonate, chloride, and sulfate ion content. Mixts. (2) and (4) were best for improving these soils. A. W. D.

SHTEL'MAKH, N.F., inzh.

New method for manufacturing rectangular valve springs.
Khim. i neft. mashinostr. no.3:36 S '64. (MIRA 17:12)

CHTEL'MANN, N. I.

"The secretory-excretory function of the stomach in goiter patients treated with 6-methyl thiouracyl." L'vov State Medical Inst. L'vov, 1956. (Dissertations for the Degree of Candidate in Medical Science)

So: Knizhaya letopis', No. 16, 1956

SHTEL'MAKH, N.I., kand.med.nauk

Secretory and excretory functions of the stomach in thyrotoxicosis.
Terap. arkh. 30 no.10:16-19 0 '58 (MIRA 11:11)

1. Iz kafedry terapii (zav. - prof. L.T. Malaya) sanitarno-gigiyenicheskogo fakul'teta Khar'kovskogo meditsinskogo instituta
(HYPERTHYROIDISM, physiology,
gastric juice secretion & stomach motor funct. (Rus))
(STOMACH, in var. dis.
hyperthyroidism, motor funct. (Rus))
(GASTRIC JUICE,
secretion in hyperthyroidism (Rus))

SHTEL'MAKH, N.I.

Secretory function of gastric glands in patients with thyro-
toxicosis treated with 6-methylthiouracil. Probl.endok.i gorm.
7 no.2:80-84 '61. (MIRA 14:5)
(HYPERTHYROIDISM) (URACIL) (GASTRIC JUICE)

SHTET'NAYK, N.I., dotsent

Diagnosis of the preclinical stage of atherosclerosis. Kardio-
logiia 5 no.2:69-73 '63 (MIRA 17:2)

1. Iz kafedry propedev'tiki vnutrennikh bolezney pediatricheskogo
fakul'teta (zav. - prof. Yu.D.Shul'ga) Khar'kovskogo meditsin-
skogo instituta.

SHTEL'MAKH, N.I., dotsent

Disorders in vascular tone and some metabolic indices in young persons. Terap. arkh. 35 no.9:67-76 S*63 (MIRA 17:4)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof. Yu.D.Shul'ga) pediatricheskogo fakul'teta Khar'kovskogo meditsinskogo instituta.

KORNIYENKO, A.M.; SHTEL'MAKHOV, M.S.; GEYLER, Z.Sh.; BERESNEV, V.A.;
KOTLIK, S.B.; GORFINSKIY, Kh.M.; ZEL'DIN, Yu.R.; KURGIN, Yu.M.;
BELYAYEV, V.G.; ZAK, P.S.; ZAYTSEV, A.A.; LI, A.M.; SKVORTSOV, L.N.;
LUTTS, R.R.; KHVINGIYA, M.V.; NINOSHVILI, B.I.; SEMENCHENKO, D.I.;
SUKHANOV, V.B.

Soviet inventions in mechanical engineering. Vest.mashinostr.
45 no.11:87-88 N '65. (MIRA 18:12)

KORNIYENKO, A.M.; SHEL'MAKHOV, M.S.; GEYLER, Z.Sh.; TSIRUL'NIKOV, I.M.;
SHLEYFER, M.L.; PELIKS, A.Ya.; BRONSHTEYN, V.S.; BERESNEV, V.A.;
KUZAKHMETOV, Sh.G.; STARKOV, V.T.; VARAKSA, A.P.; ZHELEZNYAKOV,
V.V.; STEL'MAN, L.N.; SUKHANOV, V.B.

Authors' certificates and patents. Mashinostroenie no.6:101-102
N-D '65. (MIRA 18:12)

LEVI, M.I.; VAL'KOV, B.G.; SHTEL'MAN, A.I.; KANATOV, Yu.V.

Experimental plague among different populations of southern gerbils
(*M. meridianus* Pall.). Sbor. nauch. rab. Elist. protivochum. sta.
no. 1:43-64 '59. (MIRA 13:10)
(COLGA DELAT REGION--PLAGUE) (BERBILS)

SHTEL'MAN, A. I., KANATOV, YU. V., LEVI, M. I. and VAL'KOV, B. G.

"Experimental Plague in Different Populations of Meridional Voles."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

Elistinskaya Anti-Plague Station

SHTEL'MAN, A.I.

Use of cortisone for the diagnosis of latent plague infections.
Report no.1:Diagnosis of latent plague infection in gerbils
(Meriones meridianus Pall.) with the aid of cortisone-treated
white mice. Zhur.mikrobiol.epid.i immun. 31 no.2:39-44 F '60.
(MIRA 13:6)

1. Iz Astrakhanskoy protivochumnyy stantsii.
(PLAGUE veterinary)
(CORTISONE pharmacol.)

LEVI, M.I.; NOVIKOVA, Ye.I.; MINKOV, G.B.; OPTYAKOVA, A.F.; SHTEL'MAN, A.I.;
KANATOV, Yu.V.

Serological studies in plague. Report No.1: Detection of antibodies
in sera of experimentally infected animals by means of the passive
hemagglutination on reaction. Zhur.mikrobiol., epid. i immun. 32
no.10:86691 0 '61. (MIRA 14:10)

1. Iz Astrakhanskoy i Elistinskoy protivochumnykh stantsiy.
(PLAGUE) (BLOOD-AGGLUTINATION)
(ANTIGENS AND ANTIBODIES)

SHTEL'MAN, A.I.

Use of cortisone for the purpose of detecting latent plague infection.
Report No. 2: Diagnosis of plague infection in gerbils (*Meriones
meridianus* Pall.) by provoking it using cortisone. Zhur.mikrobiol.,
epid.i immun. 32 no.12:113-114 D '61. (MIRA 15:11)

1. Iz Astrakhanskoy protivochumnyy stantsii.
(CORTISONE) (PLAGUE)

LEVI, M.I.; ZININ, P.I.; SHTEL'MAN, A.I.; SHIRYAYEV, D.T.; MIRONOV, N.P.;
CHIKRIZOV, F.D.

Hereditary resistance to plague in *Meriones meridianus*. Bul.
eksp. biol. i med. 56 no.7:75-79 J1'63 (MIRA 17:3)

1. Iz Rostovskogo-na-Donu nauchno-issledovatel'skogo protivochumnogo instituta i Astrakhanskoy protivochumnoy stantsii.
Predstavlena deystvitel'nym chlenom AMN SSSR N.N. Zhukovym-Verezhnikovym.

KALABUKHOV, N.I.; SHIROKOVA, G.P.; SHEL'MAN, A.I.

Effect of vitamins C and E on the physiological characteristics and sensitivity of the gerbil *Meriones meridianus* to plague infection. Zhur. mikrobiol., epid. i immun. 40 no.4:102-107 (MIRA 17:5)
Ap '63.

1. Iz eksperimental'noy bazy Instituta "Mikrob" i Astrakhanskoy protivozhumnyy stantsii Ministerstva zdravookhraneniya SSSR.

SHTEL'MAN, A.I.

Experimental study of the mechanism of transmission of plague among the gerbils *Meriones meridianus* Pall. and *M. tamariscinus* (Pall.) from the Volga-Ural interfluvium. Report No.4: Supplement to the problem of the infection of fleas parasitic on the gerbil *Meriones meridianus*. Med. parazit. i parazit. bol. 32 no.6:739-740 (MIRA 18:1)
N-D '63

1. Iz Astrakhanskoy protivochumnyy stantsii Ministerstva zdravookhraneniya SSSR.

LEVI, M.I.; SUCHKOV, Yu.G.; ORLOVA, G.M.; GERASYUK, I.G.; SHKODA, A.M.;
PEYSAKHIS, I.A.; STOGOVA, A.N.; IOPATINA, N.F.; SUKHARNIKOVA, N.A.;
PAK, G.Yu.; MUMINOV, K.M.; DONSKAYA, T.N.; NASSONOV, I.S.; VEYNBLAT,
V.I.; MURTAZANOVA, E.Sh.; SHTEL'MAN, A.I.; LAVRENT'YEV, A.F.;
BASOVA, N.N.; GOLKOVSKIY, G.M.; KULOVA, G.I.; SALAMOV, N.I.;
ZALYGINA, N.I.

Results of the testing of the reactions of passive hemagglutination
and neutralization of antibodies in the epizootologic examination of
wild rodents for plague. Zhur. mikrobiol., epid. i immun. 40 no.12:
118-119 D '63. (MIRA 17:12)

1. Iz Rostovskogo i Sredne Aziatskogo protivochumnykh institutov,
Chimkentskoy, Taldy-Kurganskoy, Aralomorskoy, Turkmenskoy, Astrakhanskoy
i Frunzenskoy protivochumnykh stantsiy.

PREMET, G.K.; VASILINETS, I.M.; TITENKO, V.M., inzh.; KOROSTELEV, V.M.,
inzh.; SHTEL'MUKHOVA, Ye.V., inzh.

Device for the removal of harmful wastes in the production of
"oksol" drying oil. Masl.-zhir. prom. 29 no.10:30-33 0'163.
(MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov
(for Premet, Vasilinets). 2. Georgiyevskiy masloekstraktsionnyy
zavod (for Titenko, Korostelev, Shtel'mukhova).

SHUR, Ya.S.; SHTEL'TS, Ye.V.; KANDUROVA, G.S.

Magnetic properties of magneto-anisotropic specimens of ferromagnetic powders. Part 4: Temperature dependence of magnetic properties of MnBi powder alloy specimens. Fiz. met. i metalloved. 6 no.3:420-425 '58. (MIRA 11:10)

1. Institut fiziki metallov Ural'skogo filiala AN SSSR.
(Bismuth compounds--Magnetic properties)
(Powder metallurgy) (Metals, Effect of temperature on)

SHTEMBERG, M. I., Cand Med Sci — (diss) "Experience ^{of} in work on ^{the} organi-
zation of obstetric and gynecological aid in ^{area} rural ~~rayon~~. (According
to data of Strashenskiy Rayon of ^{the} MSSR.)" Kishinev, 1958. 20 pp (Min
of Health Moldavian SSR, Kishinev State Med Inst), 300 copies (KL, 17-58,
112)

-95-

SHTEMBERG, M.I. (MSSR, r.Strasheny, Pochta, do vostrebovaniya)

Organization of mass preventive oncological examinations of the female inhabitants in a rural district [with summary in English]. Vop.onk. 4 no.4:498-500 '58 (MIRA 11:9)

1. Iz Strashenskoy rayonnoy bol'nitsy Moldavskoy SSR (glav. vrach Yu.P. Chernova, nauchn. rukovod. raboty - prof. A.Z. Kocherginskiy)
(GENITALIA, FEMALE, neoplasms
diag. mass survey of women in rural area (Rus))

SHTENBERG, M.I., rayonnyy akusher-ginekolog

Result of dispensary service of leading groups of women in a rural area. Akush. i gin. 34 no.3:86-88 My-Je '58. (MIRA 11:6)

1. Iz Strashenskoy rayonnoy bol'nitsy (glavnyy vrach Yu.P.Chernova) Moldavskoy SSR.

(GYNECOLOGICAL DISEASES. prev. & control,
outpatient rural serv. (Rus))

SHTENBERG, M.I.

Use of micarene for treating asphyxia in newborns. Zdravookhranenie
4 no.6:17-19 N-D '61. (MIRA 15:2)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. A.Z.Kocherginskiy)
Kishinevskogo meditsinskogo instituta.
(ASPHYXIA) (INFANTS (NEWBORN)) (STIMULANTS)

KOCHERGINSKIY, A.Z., prof.; SHTEMBERG, M.I., kand. med. nauk;
SHCHETININA, Ye., red.; BELOUSOVA, L., tekhn. red.

[Obstetric and gynecological aid in Moldavia] Akushersko-
ginekologicheskaya pomoshch' v Moldavii. Kishinev, ~~Karta~~
moldoveniaske, 1962. 72 p. (MIRA 15:6)
(MOLDAVIA—OBSTETRICS) (MOLDAVIA—GYNECOLOGY)

SHTENBERG, M.I.

Complications in births of a large fetus and measures for their decrease. Trudy Kish.gcs.med.inst. 13:183-186 '60. (MIRA 16:2)

1. Kafedra akusherstva i ginekologii Kishinevskogo gosudarstvennogo meditsinskogo instituta.
(LABOR (OBSTETRICS))

SHTEMBERG, M.I., kand. med. nauk; KOROLEV, K., red.

[Obstetric science in control of the health of mother
and child] Akusherskaia nauka v bor'be za zdorov'e ma-
teri i rebenka. Kishinev, Kartia moldoveniaske, 1965.
58 p. (MIRA 18:7)

ACC NR: AP6025078

SOURCE CODE: UR/0115/66/000/006/0066/0068

AUTHOR: Vukolov, V. I.; Yerdakov, V. B.; Parfenov, N. A.; Shtemberg, S. V.

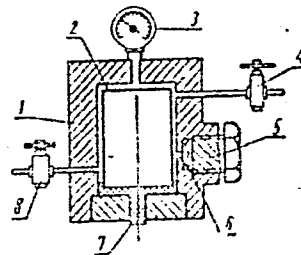
ORG: none

TITLE: Ionization chamber used for measuring high gas pressure

SOURCE: Izmeritel'naya tekhnika, no. 6, 1966, 66-68

TOPIC TAGS: ionization chamber, high pressure, high pressure research, pressure measurement, GAS PRESSURE

ABSTRACT: The I-V characteristic of a plane-parallel ionization chamber (Ich) is described by a well-known J. Boag et al. formula (Brit. J. Appl. Phys., 1952, 3, 222). According to that formula, with pressures over 10^6 n/m² and neglecting the effects of columnar recombination, for current undersaturation conditions ($f < 0.05$, $\eta > 50$), this relation is approximately true: $f \approx 1/\eta \approx 1/p$; $i = i_0 f = \text{const}$. If the columnar recombination is taken into account, then: $\eta \approx \sqrt{p}$, $f \approx 1/\eta$, $i = p^{-1/2}$. An experimental device (see figure) consisted of a steel body 1 that housed cylindrical Ich 2 having a volume of 6.2 cm³. The Ich two brass electrodes were separated by teflon insulator 7.



UDC: 621.387.422:531.787

Card 1/2

ACC NR: AP6025078

Valves 4 and 8 served for building up and reducing pressure of tritium-labeled commercial hydrogen in the ICh. The experimental results show that: (1) The current undersaturation conditions in an ICh can be used for measuring high pressures; (2) Both radioactive-isotope gases and labeled stable gases can be measured; (3) Conventional radioactive ionization manometers operated in the undersaturation range can be used for measuring high pressures of nonradioactive gases; (4) Some gases (very pure Ar or He) cannot be measured by this method. Orig. art. has: 3 figures and 6 formulas. [03]

SUB CODE: 13, 09 / SUBM DATE: none / ORIG REF: 008 / OTH REF: 005 / ATD PRESS:

5057

Card 2/2 113

SHTEMENKO, L. S. and GRIBKOVA, S. I.

"Experimental study of slippage and temperature jump in the course of rarefied air flow about a solid wall."

Report presented at the 1st All-Union Conference on Heat- and Mass- Exchange, Minsk, BSSR, 5-9 June 1961

GRIBKOVA, S.I.; SHEMENKO, L.S.

Study of the temperature jump during the flow of rarefield air
close to a hard wall. Vest.Mosk.un.Ser.3.Fiz., astron. 17
no.2:11-19 Mr-Apr '62. (MIRA 16:2)

1. Kafedra molekulyarnoy fiziki Moskovskogo universiteta.
(Gas flow) (Aerodynamic heating)

GRIKOVA, S.I.; SHTEMENKO, L.S.

Estimate of terms of second-order approximation in testing abrupt
temperature changes. Vest. Mosk. un. Ser. 3: Fiz., astron. 18
no.3:11-17 My-Je '63. (MIRA 16:10)

1. Kafedra molekulyarnoy fiziki Moskovskogo universiteta.

COMMON ELEMENTS																																																				
2ND. ORDERS																																																				
PROCESSES AND PROPERTIES INDEX																																																				
<p>SHTEMENKO, D. B.</p> <p>CA</p> <p>21</p> <p>The production of coke from the Far Eastern Region coal deposits. S. I. Zolotov and O. V. Shchegolev. <i>Coke and Chem. (U. S. S. R.)</i> 1939, No. 7, 4-6; <i>Khim. Referat. Zhur.</i> 1939, No. 11, 48.—Coals from the Burenin and Suchan deposits were coked in ovens of 200 and 150 kg. capacity. The enriched Suchan coals with 8% of admixts. produced a fused, dense coke. The same results were obtained from the "chelonyk" layer of the Burenin coal deposits. Low-grade and medium-grade coals were obtained from the ordinary coals of the "Verkhnyaya El'ga" and the "Sivak" coal layers. Qual. indexes of the Sakhalin coals are given. W. R. Henn</p>																																																				
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION																																																				
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AUTHOR: Shtemenko, O.B.

68-1-2/21

TITLE: The Quality of Coals from New Sectors of the Karaganda Basin. (Kachestvo ugley novykh rayonov Karagandinskogo basseyna.)

PERIODICAL: Koks i Khimiya, 1957, No.1, pp. 5 - 7 (USSR)

ABSTRACT: During the last few years, geological-prospecting work on some new sectors of the Karagandinsk Basin indicated the presence of coals valuable for their caking and washing properties. Of these the following sectors are of particular importance: Dolinsk, Karadzharo-Shakhansk and Tenteksk, where deposits of the Dolinskaya series are spread, consisting of 11 seams of various thickness and structure. The washability and properties of the above coals is given in Table 1. The results of experimental semi-industrial coking are given in Table 2. The results obtained indicated that a high quality metallurgical coke can be produced from the above coals. There are 2 tables.

ASSOCIATION: VUKhIN

AVAILABLE:

Card 1/1

SHEMLER, M.Ye.; SVERILOVA, G.M., redaktor; DVORKINA, B.A., redaktor.

[Aviation industry in foreign countries; a collection of translations and references] Aviatsionnaia promyshlennost' zarubezhnykh stran; sbornik perevodov i referatov. Sostavil M.Ye. Shtemler. Pod obshchei red. G.M.Sverdlova i B.A. Dvorkina.[n.p.] Izd-vo BNT No.5 [Economic aspects of transport planes] Problemy ekonomichnosti transportnykh samoletov. 1946. 57 p. [microfilm] (MLRA 8:9)

1. Russia (1923- U.S.S.R.) Ministerstvo aviatsionnoy promyshlennosti. Byuro novoy tekhniki.
(Aeronautics, Commercial)

SHTEMPEL', A.N.

Bending reflexes of the fingers with the forearm. in a. supine position. A.N. Shtempel'. Zhur. nevr. i psikh. 56 no.1 '56
(MLRA 9:4)

1. Kafedra nervnykh bolezney (sav. professor Ye. L. Venderovich [deceased]) Leningradskogo meditsinskogo instituta imeni I.P. Pavlova.
(REFLEXES) (FINGERS)

SHTEMPEL', A.N.

Problem of disseminated spongioblastoma multiforme [with summary in French]. Zhur.nevr. i psikh. 57 no.4:504-507 '57. (MIRA 10:7)

1. Kafedra nervnykh bolezney (zav. - prof. D.K.Bogorodinskiy)
I Leningradskogo meditsinskogo instituta imeni I.P.Pavlova.
(GLIOMA, case reports,
brain, spongioblastoma multiforme (Rus))
(BRAIN NEOPLASMS, case reports,
spongioblastoma multiforme (Rus))

SHTEMPER', A.N.; EPSHTEYN, A.A.

Treatment of diseases of the nervous system by prolonged use
of novocaine. Vrach.delo no.7:40-42 J1 '60. (MIRA 13:7)

1. Klinika nervnykh bolezney (zav. - prof. D.K. Bogorodinskiy)
Pervogo Leningradskogo meditsinskogo instituta.
(NERVOUS SYSTEM--DISEASES) (NOVOCAINE)

~~SHCHENBEL' B.M.~~

Representatives of upper Carboniferous flora in the coastal region
of the Sea of Okhotsk. Bot.zhur. 41 no.5:696-702 My '56. (MLRA 10:7)
(Okhotsk region--Ayano-Mayskiy District--Paleobotany)

2475 1000, 1000

20-5-51/60

AUTHOR SHTEMPER, B.M.

TITLE The Age of the Conglomerates of the Metamorphic Stratum of the Sredinnyy mountain Ridge of Kamchatka.
(Vozrast konglomeratov metamorficheskoy tolshchi Sredinnogo khre-bta Kamchatki -Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 114, Nr 5, pp 1099-1100 (U.S.S.R.)

ABSTRACT The author received a small collection of plant fossils from the mentioned region. It consists only of three samples, but is nevertheless of great interest, since it sheds light upon the age of the sediments which make up the core of the fold-formations which have always been considered as belonging to the Paleozoic or even to the Archaeozoic ones. They are Cephalotaxopsis cf. intermedia Hollick, Taxodium sp., Glyptostrobus europaeus Heer, Phyllites (cf. Corylopsis orientalis Borsuk) and Ph.sp. They were found about 20 km from the mouth, above the source, on the right bank of the river Zimka, of the left tributary of the Icha, about 100 km air line distance from the mouth of the latter. The geologists of the Kamchatka expedition of the Far Eastern Geological Administration consider the layers as belonging to the Higher Kompak suite of the Archeozoic or to the Conglomerate suite which lies below the Malkin suite of the Paleozoic. By an investigation of the Conglomerate suite the conclusions by A.V. Shcherbakov on the conglomerates which are deposited in form of an island amidst Paleozoic rocks in the upper course of the river Oblukovina are disproved, as well as their re-

Card 1/3

20-5-51/60

The Age of the Conglomerates of the Metamorphic Stratum of the Sredinny Mountain Ridge of Kamchatka.

relationship with the Neogene and even the Pliocene. The plant fossils can but indicate that they belong to the lower parts of the Tigil series of the Eocene, most probably to the Paleocene. This is confirmed by the results of petrological studies. In recent times the opinion that granites are of the age of the Alps has been more and more confirmed. Therefore there is no reason to doubt the Tertiary age of the conglomerates which ^{belong} to metamorphic rocks. The assumption that the conglomerates are deposited in form of an island amidst the Paleozoic is without any foundation. The Paleocene age of the conglomerates gives rise to doubts concerning a number of assumptions established among far eastern geologists, if it does not disprove them entirely, namely, that in the middle part of the middle ridge the Tertiary deposits are only represented by their upper part. Now that the Paleogene age of part of the metamorphic rocks has been found out, one can and must demand a revision of the problem of distribution of Paleogene carboniferous sediments south of Krugogory, which were hitherto considered as the southern boundary of coal deposits in this district. It might be possible that the carboniferous Paleogene sediments are continued farther in the south, however, not within the elevations of the mountainous Kamchatka region but in the flat region. Here the Paleogene strata might lie below the Neogene ones and could there-

Card 2/3

20-5-51/60

The Age of the Conglomerates of the Metamorphic Stratum of the Sredinny mountain Ridge of Kamchatka.

fore only be found by deep borings.
(8 Slvic references).

ASSOCIATION Laboratory for Coal Geology of the Academy of Sciences of the USSR
PRESENTED BY NALIVKIN D.B., Member of the Academy
SUBMITTED 17.1.1957
AVAILABLE Library of Congress.
Card 3/3

SHTEMPEL', B.M.; VERBITSKAYA, Z.I.

Distribution of fossil flora in cross sections of Suchan Basin
coal-bearing formations. Trudy Lab.geol.ugl. no.8:262-273
'58. (MIRA 11:12)

(Suchan Basin--Paleobotany)

SHTEMPEL', B.M.

Habitat of first angiosperms. Bot. zhur. 44 no.7:967-968 J1 '59.
(MIRA 12:12)

1.Laboratoriya geologii uglya AN SSSR, Leningrad.
(Sakhalin--Angiosperms, Fossil)

3(5), 17(4)

SGV/20-127-3-54/71

AUTHOR: Shtempel', B. M.

TITLE: The Development Stages of the Cretaceous Flora of South Primor'ye

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3,
pp 665 - 668 (USSR)

ABSTRACT: The stratigraphy of the region mentioned in the title was mainly based on palaeophytological data. A survey of the hitherto existing history of the investigation of vegetation complexes (Refs 3,4) is given. In 1954 - 58 the author collected numerous floral remnants characteristic of the entire section of the Nikanskiy stage as well as of strata surpassing the original borders of this stage. Yu. G. Mirol'yubov and, to a certain extent, the author collected remnants of terrestrial plants and hydrophytes from underneath the base of the coal-bearing sediments of the Suchanskiy section. The detection of these plant remnants together with the detection of a fauna containing Valanginia and Aucella solved the problem of the Valanginian age of this flora. These remnants were classified as standard fossils. K. M. Khudoley found a leaf of a sago-like plant (Ctenis densinervis Racib., according to the author's classification) together

Card 1/4

The Development Stages of the Cretaceous Flora of
South Primor'ye

SOV/20-127-3-54/71

with Upper Tithonian ammonites and other molluscs on the Putyatin Island so that the time of stratification can be determined with great preciseness. R. I. Sokolov found numerous vegetable remnants together with Valanginian and Tithonian faunas, in the southern part of the Tetyukhinskiy district along the river Sibaygou (right tributary of the river Tadusha). The Suchan flora is characterized by an abundance of conifers and scarceness of sago-like plants; the contrary is the case with the flora along the river Sibaygou. By comparison of these two floras their inheritance beginning with the Valanginian can be determined. Thus there was no considerable interruption during the development of these floras. It is justified to observe the Cretaceous flora from the very beginning of Cretaceous and to follow it up to the end of the Suchan sedimentation. In the region of the three coal-bearing suites the author found a separation of the Lower Cretaceous floras into a) Nikanskaya and b) Bokhayskaya. The first one is represented by the remnants of two lower suites of the Suchan section, whereas the second one consists of remnants of the lower (North Suchan) suite. The change of the composition, the extinction of the

Card 2/4

The Development Stages of the Cretaceous Flora of
South Primor'ye

SOV/20-127-3-54/71

Nikanskiye varieties, and the formation of the Bokhayskiye varieties took place during the formation of the middle (Old Suchan) suite. At the end of the formation of the North Suchan suite this undisturbed development was interrupted by the transgression of the Albian-Senoman Sea. It left a small mass of marine and lagoon sediments after its regression. By further observations of the development of the Cretaceous flora the author detects their remnants found in the Dostoyevskoye coal deposits. Here the replacement of the Bokhayskaya flora by the Gilyatskaya flora can be observed. A transition like the above-mentioned is found also here. The author continues his survey up to the Partizanskaya suite (collections by R. I. Sokolov). Its flora is clearly determined as Senon-Danian. There are 9 Soviet references.

ASSOCIATION: Laboratoriya geologii uglya Akademii nauk SSSR (Laboratory for the Geology of Coal of the Academy of Sciences, USSR)

Card 3/4

SHTEMPEL', B.M.

Phytostratigraphy of the Cretaceous system in southern Maritime
Territory. Trudy Lab. geol. ug¹. no.10:16⁷-193 '60. (MIRA 13:9)
(Suchan Basin--Geology, Stratigraphic)

SHTEMPEL', B.M.

Discovery of Amurian Flora in southern Maritime Territory. Dokl.
AN SSSR 144 no.1:212-215 My '62. (MIRA 15:5)

1. Laboratoriya geologii uglya AN SSSR. Predstavleno akademikom
D.V.Nalivkinym.
(Maritime Territory--Paleobotany)

VOLKOVA, I.B.; NALIVKIN, D.V.; SLATVINSKAYA, Ye.A.; BOGOMAZOV, V.M.;
 GAVRILOVA, O.I.; GUREVICH, A.B.; MUDROV, A.M.; NIKOL'SKIY, V.M.;
 OSHURKOVA, M.V.; PETRENKO, A.A.; POGREBITSKIY, Ye.O.; RITENBERG,
 M.I.; BOCHKOVSKIY, F.A.; KIM, N.G.; LUSHCHIKHIN, G.M.; LYUBER,
 A.A.; MAKEDONTSOV, A.V.; SENDERZON, E.M.; SINITSYN, V.M.; SHORIN,
 V.P.; BELYANKIN, L.F.; VAL'TS, I.E.; VLASOV, V.M.; ISHINA, T.A.;
 KONIVETS, V.I.; MARKOVICH, Ye.M.; MOKRINSKIY, V.V.; PROSVIRYAKOVA,
 Z.P.; RADCHENKO, O.A.; SEMERIKOV, A.A.; FADDEYEVA, Z.I.; BUTOVA,
 Ye.P.; VERBITSKAYA, Z.I.; DZENS-LITOVSKAYA, O.A.; DUBAR', G.P.;
 IVANOV, N.V.; KARPOV, N.F.; KOLESNIKOV, Ch.M.; NEFED'YEV, L.P.;
 POPOV, G.G.; SHTEMPEL', B.M.; KIRYUKOV, V.V.; LAVROV, V.V.;
 SAL'NIKOV, B.A.; MONAKHOVA, L.P.[deceased]; MURATOV, M.V.;
 GORSKIY, I.I., glav. red.; GUSEV, A.I., red.; MOLCHANOV, I.I.,
 red.; TYZHNOV, A.V., red.; SHABAROV, N.V., red.; YAVORSKIY, V.I.,
 red.; REYKHERT, L.A., red.izd-va; ZAMARAYEVA, R.A., tekhn. red

[Atlas of maps of coal deposits of the U.S.S.R.]Atlas kart ugle-
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 (MIRA 16:3)

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 (Coal geology—Maps)

VERBITSKAYA, Zoya Ivanovna; DZENS-LITOVSKAYA, Ol'ga Alekseyevna;
SHTIMPEL', Boris Mikhaylovich; LYUBER, A.A. st. nauchn.
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SHTEMPEL', Viktor Yevgen'yevich, assistant; VOROTNIKOVA,
R.V., red.; BERNGARDT, N.Ye., tekhn. red.

[Mineral wealth of Voronezh Province] Poleznye iskopaemye Voronezhskoi oblasti. Voronezh, Voronezhskoe knizhnoe izd-vo, 1961. 74 p. (MIRA 15:2)

1. Kafedra geologii Voronezhskogo sel'skokhozyaystvennogo instituta (for Shtempel').
(Voronezh Province--Mines and mineral resources)

SHTEMPEL', Ye.P., inzh.

Devices for the automatic control of high-frequency protection
channels. Elek. sta. 33 no.8:77-79 Ag '62. (MIRA 15:8)
(Electric power distribution--Electronic equipment)
(Electric protection)

SHTEMPROK, M.

Reviews and bibliography. Vest. AN Kazakh. SSR 21 no.5:92 My '65.
(MIRA 18:7)

Shtenbek, B.

Category : USSR/Electricity - Semiconductors

G-3

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4226

Author : Shtenbek, B., Baranskiy, P.

Title : Investigation of the Peltier Effect and of the Thermoelectromotive Forces in Germanium.

Orig Pub : Zh. takhn. fiziki, 1956, 26, No 3, 683-685

Abstract : Doubt is raised concerning the reliability of the quantities P (Peltier heat) and τ (Thomson coefficient) obtained from a known value of α using the equations

$$\frac{dP}{dT} - \alpha - \tau = 0, \quad \frac{dP}{dT} - \frac{P}{T} - \tau = 0$$

To check the equations, P and α were determined experimentally. The resultant values of P (T) and $\alpha T = f(T)$ do not agree within the experimental accuracy limits, so that thermoelectric phenomena cannot be considered reversible.

Card : 1/1

SHTENBEK, M.;BARANSKIY, P.I.

Investigating the Peltier effect and thermoelectromotive forces in
germanium Izv. AN SSSR. Ser. fiz. 20 no.12:1491-1493 D '56.
(MLRA 10:3)

1. Institut fiziki Akademii nauk USSR.
(Germanium-Electric properties)

SHTENBERG, M.

An attempt to determine an increase of the charge carrier temperature caused by an electric field in germanium. ⁴ 4 F 2 c
 Shtenberg. Izvest. Akad. Nauk S.S.S.R., Ser. Fiz.-Mat. Nauk (1950). — Nonuniform c.d. distribution in a semiconductor causes the appearance of a special type of thermoelectric e.m.f., U , which was measured by means of probes on specially cut Ge. It can be calculated, that in order to raise the temp. of the electron gas by 1° at room temp., an increase of the elec. field of $4-6$ v./cm. is required. An increase of the same order of magnitude can be theoretically derived. S. Pakswes

MT

SHTENBEK, M.

✓ 537.311.33:540.289:537.32 826 2

An Investigation of the Peltier Effect
and Thermoelectric Forces in Ger-
manium M. Shtenbek & P. I. Baranski

24
(Zh. tech. fiz., March 1956, Vol. 26, No. 3,
pp. 683-685.) The fundamental equations
(1) and (2) relating the Peltier heat,
Thomson coefficient and differential thermo-
e.m.f. to one another do not necessarily
follow from the first two laws of thermo-
dynamics and therefore the first two of these
quantities cannot be determined uniquely
from measured values of the thermo-e.m.f.
A method has been developed for direct
measurement of the Peltier heat at a Ge-Cu
contact. Some experimental curves are
shown, and theoretical implications are
discussed.

SP PRB MK

SCHTENBEK, M.

SUBJECT

USSR / PHYSICS

CARD 1 / 2

PA - 1206

AUTHOR

SCHTENBEK, M., BARANSKIJ, P.I.

TITLE

The Methods employed for the Precise Measuring of the PELLETIER-Effect and of Thermoelectromotoric Forces.

PERIODICAL

Zurn. techn. fis, 26, 1373-1388 (1956)
Publ. 7 / 1956 reviewed 8 / 1956

The methods employed for measuring the PELLETIER voltage P and thermoelectromotoric force by means of which the formula $P = \alpha T$ was checked on a semiconductor are described. Tests did not confirm the formula $P = \alpha T$. The method worked out here is a further development of the Jordan method. As it is impossible to produce fully symmetrical heat resistances, a method was worked out which is indifferent in this respect. At first, the case of a homogeneous sample with a constant electric resistance which is independent of the current i is investigated. This is followed by a case in which the resistance depends on i . Finally, there follows the case of an inhomogeneous sample. Investigation was based on the method of intersecting curves: P was measured with a given T_0 . At first, this was done for $i = + 110$ mA, and the readings on the galvanometer $n_1^!$ and $n_2^!$, which correspond to the two heating powers $W_1^!$ and $W_2^!$, were noted. The same happened in the case of $i = - 110$ mA. The graphical representation of $\Delta T(W_1)$ and $\Delta T(W_2)$ resulted in straight lines which intersected at a point S. Deviation from the straight line was not more than from 1 to 1,5% in

SHITENBEK, M

24 2 5
The Peltier effect and thermoelectric force in germanium.
M. Shitenbek and P. I. Baranskii. *Soviet Phys. Tech. Phys.* 4, 859-61 (1967) (English translation).—See C.A. 51, 17a.
B. M. R.

RM KSS
MT

AUTHOR
TITLE
PERIODICAL
ABSTRACT

SHTENBEK, M., BARANSKIY, P.I.

PA - 2116

Investigation of the Minority Current Carriers Movement in Germanium
(Izucheniye dvizheniya neosnovnykh nositeley toka v ob'yeme germaniya).
Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 2, pp 221-232 (U.S.S.R.)

Received 3/1957

Reviewed 3/1957

The purpose of the experiments and the experimental order are first discussed. The study of the motion of the injected holes which reach the collector permit the following measurement. a) the time of flight t_1 and the mobility μ , b) the diffusion in the longitudinal direction that is vertical to the electric field. From the attached diagrams the deviations of the electrometers are to be seen as a function of frequency. A table shows the measuring values for transitions through zero, the flying times, and mobilities. Experiments are typically characterized by the dependence of the deviation of the electrometer on the size of the magnetic transversal field. Summarizing the following conclusions are drawn. 1) a zero-method was worked out for the accurate measuring of mobility in the case of the exclusion of influence exercised by surfaces, 2) methods for the measuring of the coefficients of longitudinal- and transversal diffusion were worked out. 3) Quantitatively (with an accuracy of 1%) the independence of mobility of the voltage of the electric field (in the interval of $2 \leq E \leq 10$ V/cm) has been confirmed for the case of Ge of the type "n". 4) It was shown that mobility in the direction E and the coefficients of longitudinal diffusion obey the Einstein relation. 5) It was found that the coefficient of transversal diffusion is considerably greater

Card 1/2

PA - 2116

Investigation of the Minority Current Carriers Movement in Germanium.

than that of longitudinal diffusion (Influence exercised by anisotropy?).
6) In the case of experiments in which the presence of slight holes to
the amount of $\approx 0,5\%$ of their total number might have been recorded,
their presence could not be observed. (8 illustrations, 1 table)

ASSOCIATION Physical Institute of the Academy of Science of the U.S.S.R., Kiev.
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Card 2/2

AUTHOR
TITLE

SHTENBEK, M., BARANSKIY, P.I.

PA - 2117

Experimental Study of the Interrelations between the Pelletier Effect and the Thermoelectromotoric Forces in Germanium (Eksperimental'noe izucheniye vzaimosvyazi effekta Pel'tje i termoelektrodvishushchikh sil v germanii).

PERIODICAL

Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 2, pp 233-237 (U.S.S.R.)

Reviewed 3/1957

ABSTRACT

Received 3/1957
In the course of the work dealing with interaction between the Pelletier coefficient P and the coefficient of the differential thermoelectromotoric force α the authors succeeded in obtaining new results. In the first chapter the treatment of the previously obtained results in the case of a new graduation of thermocouples is dealt with. In order to avoid errors graduation of the thermocouples was carried out with the aid of a helium thermometer. The accuracy attained on the occasion with the determination of P and the results of temperature measurements permitted control of the equations mentioned in previous papers (Zhurn. Tekhn. Fiz., 1956, Vol 26, Nr 7, p 683). In the next chapter the new results are described. In diagrams the dependences of P and α on temperature are shown for the various samples. The inequation $P \neq \alpha T$, which was observed within the domain of admixture conductivity in the samples of germanium of the types "n" and "p" which are of different specific resistance, must be considered to be undisputed.
The values for P and α , which were obtained in the samples investigated

Card 1/2

L 07579-67

ACC NR: AP6006554

(A)

SOURCE CODE: UR/0335/65/000/005/0012/0014

4
13

AUTHOR: Shtenberg, A. (Professor); Yurin, V.; Pugachev, P.

ORG: [Shtenberg] Nutrition Institute, AMN SSSR (Institut pitaniya AMN SSSR); [Yurin] Moscow Institute of Hygiene im. F. F. Erisman (Moskovskiy institut gigiyeny); [Pugachev] Moscow Technological Institute of the Meat and Dairy Industry (Moskovskiy tekhnologicheskii institut myasnoy i molochnoy promyshlennosti)

TITLE: PE-500 polyethylene for packaging meat products

SOURCE: Myasnaya industriya SSSR, no. 5, 1965, 12-14

TOPIC TAGS: ^{ethylene}resin, polyethylene plastic, food technology, processed animal product, packing material, polyethylene / PE-500 polyethylene

ABSTRACT: Of the polyethylenes tested only the resin of polyethylene PE-500 was found to be suitable for packaging meat products. Wrappers 50 and 100 microns in thickness, bottles, and flasks prepared from PE-500 polyethylene were tested on 75% saccharose, 40% ethyl alcohol, 22% sodium chloride, and 2% acetic acid solutions, as well as on acidified and alkalized physiological solutions, hot water, and cold water. The experimental results show that 1) the packaging material exposed to the simulated food samples for 30 days does not change its appearance, 2) the simulated food samples do not show any visible changes in color or transparency, 3) most of the simulated

UDC 678.742:637.52.004.3

Card 1/2

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ACC NR: AP6006554

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food samples in the bottle and flasks develop a strange odor and taste after a period of 3 and 7 days which becomes more pronounced with the prolongation of the contact time, 4) this phenomenon does not appear in samples enveloped in wrappers, 4) some low molecular weight compounds pass from the packaging material into the food samples after a contact time of 7 and 14 days, and 5) PE-500 polyethylene powder injected in animals for 8 months do not change their general condition. Sealed bags 10 x 20 cm in size prepared from the 50 and 100 micron wrapping material were tested on pork, beef, half-smoked sausage, lard, and other meat products and the results compared with those obtained from packaging similar food samples in glass jars. The test data lead to the conclusion that PE-500 polyethylene has good prospects as a packaging material for meat products. It is suggested that the polyethylene wrapping material be used in the main for wrapping meat products and the bottles and flasks be limited to packaging dry products. It is also suggested that meat products with a low fat content be packaged in the polyethylene packaging material for storing at temperatures higher than 4 C.

SUB CODE: 11, 08/ SUBM DATE: none

2/2

SHTENBERG, A. I.

Jun 1947

USSR/Medicine - Jaundice
Medicine -Liver

"Acute Toxic Hepatitis with Ascites", A. I. Shtenberg, Yu. I. Shillinger, Section on Alimentary Hygiene, of the Institute of Nutrition of the Academy of Medical Sciences of the USSR,
8 pp

"Gigiyena i Sanitariya" No 6

Historical discussion of the disease from its first occurrence in 1931 in Besh - aryk in the Tashkent area. Refers to work done by Burkser, Yakoblevoy, Tsener, and Men'shikov among others. In 1946 Yunusov and Sidyakin of the Institute of Chemistry, Academy of Sciences Uzbek SSR, determined that the mixture *Heliotropium lasiocarpum* also contains the two alkaloids *Heliotropin* and *Lasiocarpin*.

PA 16T47

SHTERBERG, A. I.

Shterberg, A. I. "Recent data on the natural arsenic content of plant and animal tissues and the effect of 'tissue' arsenic on the animal organism," Nauch. Trudy In-ta pitaniya (Akad. med. nauk USSR), Moscow, 1948, p. 3-14 -- Bibliog: 3rd items

So: U-3566, 16 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

Shtenberg, A. I.

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15 items.

So: U-3566, 10 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

REYSLER, A.V.; SHTENBERG, A.I.; MIN'OVICH, K.G., redaktor; KARASIK, N.,
tekhnicheskiiy redaktor

[Sanitary inspection of food products; general principles and
sampling] Sanitarnaya ekspertiza pishchevykh produktov; obshchie
printsipy i vziatie prob. Moskva, Gos. izd-vo med. lit-ry, 1950.
146 p. [Microfilm] (MLRA 9:12)

(FOOD ADULTERATION AND INSPECTION)

SHTENBERG, A. I.

Basic hygienic principles in dyeing of food products. Gig.,
sanit., Moskva No. 11, Nov. 50. p. 28-32

1. Of the Institute of Nutrition of the Academy of Medical
Sciences USSR and of the All-Union State Sanitary Inspection
Office.

CLML 20, 3, March 1951